

WHAT IS CLAIMED IS:

1. A catheter exchange method, comprising the steps of:
introducing a guidewire having a proximal and a distal end into the
vasculature of a patient until the distal end is near to a treatment site;
5 delivering a first catheter comprising an elongate catheter shaft having
a proximal end, a distal end, and at least one lumen extending therethrough,
over the proximal end of the guidewire until the distal end of the first catheter
is near to the treatment site;
removing the first catheter from the guidewire;
10 delivering a second catheter comprising an elongate catheter shaft
having a proximal end, a distal end, and at least one lumen extending
therethrough, over the proximal end of the guidewire until the distal end of the
second catheter is near to the treatment site.
2. The method of Claim 1, wherein an occlusion device is mounted on the
15 distal end of the guidewire.
3. The method of Claim 2, further comprising the step of actuating the
occlusion device to at least partially block the flow of blood moving downstream.
4. The method of Claim 2, wherein the occlusion device is an occlusion
balloon.
- 20 5. The method of Claim 2, wherein the occlusion device is a self-
expanding member.
6. The method of Claim 2, wherein the occlusion device is a mechanically
deployed member.
7. The method of Claim 1, wherein the first catheter is a therapy catheter
25 which produces emboli in the vasculature.
8. The method of Claim 7, wherein the therapy catheter has a dilatation
balloon mounted on a distal end of the catheter for compressing plaque found on the
walls of the vasculature.
9. The method of Claim 7, wherein the therapy catheter has a balloon
30 mounted on a distal end of the catheter for deploying a stent to the walls of the
vasculature.

10. The method of Claim 7, wherein the therapy catheter is a vibration delivery catheter.

11. The method of Claim 7, wherein the therapy catheter is a drug delivery catheter.

5 12. The method of Claim 7, wherein the therapy catheter deploys embolization elements for treatment of an aneurysm.

13. The method of Claim 1, wherein the second catheter is an aspiration catheter.

14. The method of Claim 1, wherein the treatment site is an occlusion.

10 15. The method of Claim 1, wherein the treatment site is an aneurysm.

16. The method of Claim 1, wherein the treatment site is in a saphenous vein graft.

17. The method of Claim 1, wherein the treatment site is in a coronary artery.

15 18. The method of Claim 1, wherein the guidewire has an outer diameter of about 0.014 inches.

19. A method for exchanging catheters while isolating emboli to a working area in a blood vessel, comprising the steps of:

20 delivering a guidewire having a proximal and a distal end into the blood vessel, the distal end having an occlusive device mounted thereon, wherein the occlusive device is positioned at a point distal to a desired working area;

advancing a therapy catheter having a proximal and a distal end over the guidewire such that the distal end of the therapy catheter is located within the desired working area;

25 actuating the occlusive device such that the device contacts the walls of the vessel to at least partially obstruct blood flow through the vessel and isolate emboli to the working area;

30 performing treatment to the blood vessel using therapy means located at the distal end of the therapy catheter, said treatment creating emboli within the blood vessel;

removing the therapy catheter from the guidewire;

advancing an aspiration catheter having a proximal and a distal end over the guidewire such that the distal end of the aspiration catheter is located within the working area; and

applying negative pressure to the aspiration catheter to remove emboli isolated within the working area.

20. The method of Claim 19, further comprising the steps of:

removing the aspiration catheter from the guidewire;

advancing a second therapy catheter over the guidewire and performing a second treatment to the blood vessel.

21. The method of Claim 20, further comprising the step of de-actuating the occlusive device prior to removing the aspiration catheter.

22. The method of Claim 20, further comprising the step of re-actuating the occlusive device after advancing the second therapy catheter over the guidewire.

23. A method of containing emboli within a working area of a blood vessel, comprising the steps of:

delivering a guidewire having an occlusive device mounted on a distal end of the guidewire;

deploying the occlusive device at a position downstream from a desired working area such that blood flow is at least partially occluded by the occlusive device;

creating emboli within the working area of the blood vessel; and
advancing an aspiration catheter over the guidewire for removing the emboli from the blood vessel.

24. The method of Claim 23, wherein the emboli are created by dislodging plaque from a lesion formed on a wall of the blood vessel.

25. The method of Claim 24, wherein the plaque is dislodged by a dilatation balloon compressing the plaque against the wall, the dilatation balloon mounted on the distal end of a therapy catheter advanced over the guidewire.

26. The method of Claim 24, wherein the plaque is dislodged by targeting of ultrasounds.

27. The method of Claim 24, wherein the plaque is dislodged by releasing drug delivery fluids.

28. The method of Claim 23, wherein the emboli are created by a catheter advanced over the guidewire deploying embolization elements to an aneurysm.